

THE EUGENICS REVIEW

THE GALTON LECTURE.*

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If there is one danger more than another to which scientific workers are prone, it is the risk of extreme specialisation. Of course, every one who has done intensive scientific work knows that without specialisation it is impossible to define one's aim and purpose with exactitude and achieve anything. But it is of the utmost importance, while specialising, to keep in touch with the general progress of science, to keep moving in the general advance, and to orientate oneself to the proper relations of the subject in which one is working. No one freed himself so much from this risk of narrowness as did Sir Francis Galton, whose memory we are met to-night to celebrate. One of the distinctive features of his work was the breaking down of the barriers between a number of different subjects so as to allow the free intercourse between workers in widely different branches of science, which is one of the essential factors of progress in scientific investigation. One of the remarkable things about Sir Francis Galton was that, unlike most people who break down barriers, he does not seem to have been attacked by the people on the two sides of the barriers, as usually happens to those who work on border lines. It is a remarkable tribute to his personal qualities, which those of us who are working on such frontiers will appreciate, that he seems to have been exempt from this type of attack, with which many of us are so very familiar.

During the last few years you have had at these annual meetings several distinguished speakers who have discussed Sir Francis Galton's work and his position in science ; so that it is hardly necessary for me to-night to take up that aspect of the subject of the celebration. I would rather deal with subjects such as Sir Francis Galton himself would have dealt with had he still been alive, looking to the future rather than to the past history of the subject in which we are interested. Nor do I propose to-night to discuss with you the question of inheritance ; because the fact of inheritance of bodily structure and mental aptitude is presumably admitted by all of those who are present here this evening. I would prefer rather to discuss the present position of the problem of race as it affects the human family, and discuss certain disconcerting factors that are producing a state of extraordinary chaos in the whole field of Anthropology at the present time.

*Monday, 18th February, 1924.

Perhaps I should give you some explicit illustrations, to make clear precisely what I mean by the reference to the chaotic conditions of Anthropology. The statement has been recently made by a prominent anthropologist in this country that the distinctive features of the Mongolian Race are due to the fact that for many centuries the children of this race were in the habit of sucking the udders of mares in order to obtain their nutriment. This may sound a fantastic story ; but the statement was made by a distinguished Professor of the University of Oxford, in a book which was published less than twelve months ago by the University of Cambridge and edited by prominent members of its School of History.

I mention this because quite recently a distinguished colleague, who is perhaps better known than almost anyone in the Institution at which I work, delivered a very vigorous attack upon me for daring to suggest that racial characters were inherited ; because, he said (without citing the authority) it was well-known that the characters of the Mongolian race were due to the fact that they absorbed their milk in this peculiar manner ; and that hereditary qualities are by no means so important as the effects of environment. Now this extreme claim to ignore the influence of heredity (or rather to exalt the potency of environment and the transmission of its hypothetical effects) may be fantastic nonsense ; but these statements have been made by men of outstanding distinction in anthropology in two of the most important Universities in this country. If we go abroad, and look to the leaders of anthropological thought in America, readers of your Journal may have noticed a few months ago the review of a very remarkable book by the Professor of Anthropology in Harvard University, a man of such outstanding distinction that he was selected by the late President Wilson to interpret American thought in Anthropology at the Peace Conference in Paris. He chose three measurements of the skull upon which to base his estimate of race ; and after obtaining measurements from all parts of the earth, he wrote a very large tome in which he set forth the results of his remarkable inquiry. He came to the conclusion that 70 per cent. of the population of Norway, which I suppose is the most purely blonde and representative Nordic race which still exists, belonged to the proto-negroid stock. One would have imagined that a result like that would have made him suspicious of the validity of the arguments that he was using ; but, if so, it did not restrain him from making a book of this sort of stuff. When one finds such statements made by responsible scholars, one begins almost to despair of the possibility of rescuing Anthropology from the quagmire into which it has fallen.

A few months ago I was discussing with one of the chief teachers of Anthropology in this country the possibility of classifying human races in strict accordance with biological principles and the frank recognition of the fact of evolution. Although he had been at one time a Professor of Zoology, he told me that he thought it was impossible to frame such a classification. But if Anthropology is to be treated as a serious scientific subject, if we are to give frank recognition to the facts of inheritance and to the factors which we know

to have played a part in the evolution of the human family, it is essential that we should attempt to classify the human family on strictly biological principles, in accordance with what is known of the history of that family. This is not a large demand to make ; and it is quite possible to do it at the present time. We have enough information to justify us in classifying a number of distinct races, which at vastly different periods of the history of our family became differentiated the one from the other in sharply defined areas of characterization, but which during the past fifty centuries have undergone a profound degree of admixture one with the other. Now this is possibly the fundamental condition upon which a true science of Anthropology should be built up : and it is only because the teachers of this subject in almost every country to-day have been repudiating or denying the possibility of doing it, and have put forward such preposterous nonsense as I have just quoted, that I deem it worth while to mention a fact which ought to be obvious to every biologist.

The assumption pervading most modern teaching on this subject, that the form assumed by culture is wholly or primarily a question of race, is a matter that urgently calls for inquiry. The varying temperaments of different races are patent enough, and their influence upon the intellectual and moral aspects assumed by culture in different communities can be clearly demonstrated ; but it has not been generally recognised how large a part has been played by the social environment created by historical circumstances in shaping customs and beliefs and in determining intellectual and industrial progress. Many travellers, like Galton himself, have been impressed by the high intelligence and ability of certain peoples of lowly culture, and have realised that only the lack of opportunities for profiting from what civilisation has put at our disposal has prevented such people from attaining a cultural status such as we enjoy and suffer.

It was the people to whom geographical circumstances and a special series of events presented the opportunities which prompted them to devise the practices of civilisation who in fact became the inventors of civilisation. Although this necessarily implied that they were capable of seizing the chance thus forced upon them, it does not imply, as so many writers assume, that the people who actually attained such great achievements were better equipped than others to whom such opportunities never presented themselves. Popular doctrines of the dominant influence of geographical environment upon human structure and behaviour are, however, wholly misleading.

I wish to turn next to consider certain aspects of race which have been playing a very large part in another aspect of anthropological investigation. I refer especially to the question of racial characteristics as they affect man on the mental side. In most treatises dealing with the history of civilisation, and with the investigation of the cultural side of Anthropology, one constantly comes across the statement that certain attributes, certain aspects of culture, are the inevitable expression of racial characteristics. In fact, in most ethnological discussions at the present time it is very difficult to persuade people to dissociate the idea of race and culture.

This is a question which is somewhat involved and presents some difficulty ; but it seems to me there are abundant facts well defined that enable one to clear the issue, and to reach at any rate approximate truth.

When one finds the claim made that certain types of culture are the expression of a definite race, it is extremely difficult, if not impossible, to square those hypotheses with the known facts that only certain members of the race enjoy the culture in question, which they share with races utterly alien to them. What most people who engage in these discussions seem to overlook is the fact that man is endowed with the power of speech. That is the outstanding fact which distinguishes man from all other living creatures. As the result of the acquisition of speech man is able to hand on from one generation to another the knowledge and the traditions which have been accumulated in his own generation. With regard to the vast majority of human subjects, the whole of their mental outfit, or at any rate practically the whole, has been borrowed from the community in which they live, or from the newspapers which they read day by day. The occurrence of any real originality of thought or action is extremely rare. This has always been so in the history of the human family; and such originality is probably rarer at the present day, simply because the means of communication are more intimate and the opportunity for borrowing is greater. This fact has been overlooked by most of those engaged in these recent discussions, especially by those concerned with the significance of culture in reference to race. The extent to which culture has spread from one community to another has been grossly under-estimated during the last fifty years : and what those Anthropologists who are associated with me are striving to do to-day, is to bring scholars, and those who are seriously studying the history of mankind, to recognise the fact of this diffusion of culture ; and to pay more attention than has been paid within the last fifty years to the vast influence which this process has exerted in the development of civilisation.

Now this is intimately associated with the consideration of the question of the influence of environment upon human beings. In the discussion of this problem there has been a tendency to under-rate the influence of social environment. On the other hand there is a widespread tendency vastly to over-rate the influence of geographical environment. One finds that quite a large number of anthropologists, both on the physical side and on the cultural side, are apt to claim that geographical circumstances can alter the physical structure and the mental attitude of human beings to a vastly greater extent than is justified by the facts. I may just refer to one particular speculation which has been adopted with amazing credulity by scholars on both sides of the world, that is the claim for the influence of desiccation. The theory is that as the result of periodical desiccations in the centres of practically all the Continents vast movements of people are initiated.

These hypotheses have been put forward from time to time over a long period of years ; but during the last twenty years Professor Huntington, of Yale University, has revived them and put forward

the view that they represent the chief factor in the upbuilding of civilisation. The drying up of continents is claimed to have driven people to move and come into contact with people in other continents ; and that this blending has been the chief stimulus which has resulted in the development and diffusion of civilisation. This sounds at first sight plausible enough ; but if one comes to analyse it, very little, if any, real enlightenment or agreement with fact is found. It does not offer any explanation at all as to why civilisation grew up, or why it became diffused in the way that we know it to have been diffused ; and moreover the evidence of desiccation, so far as it affects man, is not only questionable, but certainly false. Huntington began this work in the region of Turkestan where, of course, a great many buried cities are found at the present day. But a fact he neglected to record when he was discussing these matters was that at the time when these particular settlements were founded the area was already desiccated ; because in most of these places under consideration one finds extensive irrigation works, with aqueducts in some cases many miles in length, to bring water to these settlements when they were first established. So it was not the desiccation that destroyed the civilization. The civilization intruded into these regions in spite of the fact that they were desiccated.

This brings us to the consideration of what is the chief motive of diffusion. People went to these unattractive places because there was something there which exercised so powerful an inducement that they were content to put up with the hardships and the heavy toil necessary to make these places inhabitable. In the early history of civilization men did not settle in places that were attractive simply from the agricultural point of view, or from any other point of view, except that they provided substances which they valued. And the history of mankind has not changed from that day to this. We have seen in our own generation the same process occurring in California, in Australia, in South Africa and in many other parts of the world. The great settlements occur in places where gold, or some other precious metal or stone, is found ; and when the gold supply begins to be exhausted, if there is suitable agricultural land in the neighbourhood, the population which has been attracted there will turn to other pursuits in order to obtain a livelihood. That is the history of California, it is the history of many places in Australia, it is the history of the Transvaal, and it has been the history of mankind for the last fifty centuries. The factor which determined large settlements of people in Asia and parts of Africa, and in America in the early days before the coming of the Spaniard, was identical with that which has occurred since those times. Men were induced by the arbitrary value which they attached to such intrinsically useless substances as this soft yellow metal to settle in certain places and not in others ; and this was the means by which culture was diffused throughout the world. The question of race played a comparatively insignificant part in the adoption of culture, and desiccation as a factor in the process was even of less account. Civilisation was devised by a particular group of people

under a special set of circumstances, which impelled them to begin with the cultivation of cereals ; and it was spread from them to a variety of different races, to the mixed populations of Europe, to the even more mixed populations of Asia, and then eventually further afield until probably in the Fifth Century before the Christian Era it crossed the Pacific and reached Central America and Peru. In this process the racial character counted for little more than the fact that certain races were more apt by their mental qualities to accept culture and to develop it than others. Although this wave spread to Australia in early times the people of that Continent were of so lowly a status and of such poor powers of mental concentration that, apart from adopting the marriage regulations of this ancient civilisation, the Australians accepted very little else of it. But in Indonesia, where there exists a people more likely to be influenced by culture, they adopted a great part of this ancient civilisation ; and it has persisted with variations until the present day.

The point which I want to emphasize is, that although different races have obvious differences in mental aptitude which are almost as clearly defined as their bodily characteristics, those aptitudes were not the fundamental factor in the upbuilding of civilization, although in the later stages they came to play a large part ; and those people which had the greater aptitude to acquire knowledge, and the greater moral restraint to control their behaviour, have obtained a dominant position in the world. But in the beginning it was clearly the fact that a certain set of circumstances compelled one particular people to devise the artificial compound which we call civilization, and to hand it on from one population to another, mainly by the exertions not of the leaders of the population, but of the miners and the searchers after wealth, who began to exploit such materials as they appreciated wherever they found them.

In discussing these matters I have attempted to emphasize the fact that there is no necessary connection between race and culture. If one makes an impartial survey of the history of civilization, one will realise the truth of this claim. In recognising the fact that civilization grew up somewhere in the region we now call the Ancient East—and everyone admits that it did originate there—the main dispute at present is whether it arose in Egypt or Babylonia or in Syria. But there is no doubt that it did arise in one of these areas ; and we need not at the present moment go into the question of which. Thence it was diffused for the main part since the year 3,000 B.C. ; and if one traces the line of spread, whether along the coasts of Asia and India and Ceylon and Indonesia, or overland, through Turkestan to Siberia, or east along the Tarim Valley to the Shen-Si Province of China, every step in this progress is associated with ancient remains that shew clearly why the people settled in certain places and not in others. It was not because they were attractive from the point of view of comfortable places to live in, or where food was obtained easily, but mainly because at those places were found some of those substances to which civilization has given purely arbitrary values.

These views which I have been putting before you are considered

by most anthropologists the rankest heresy : but it seems to me that the evidence in substantiation of them is becoming so conclusive that the date is not far distant when all objection to them will be overcome. But one circumstance which at the present moment is delaying the full recognition of the factors which I have been trying to explain, is a very remarkable claim which is being made by certain psychologists at the present time. Very few anthropologists have adopted these views ; but the small minority of people who have done so are making a great clamour at the present time. During the last 50 years the view was adopted that the teaching of evolution necessitated the belief that civilization grew up independently in every spot where it is found, if historical and written documents had not survived to demonstrate the diffusion in ancient times. This interpretation was claimed to be based upon the teaching of Darwin, that civilization evolved sporadically in those different countries. Of course, that is not evolution at all. It is simply a claim for spontaneous generation. But this fact is not appreciated by most of those who have put forward this ethnological claim. This remarkable speculation was fostered by the view (for which in this country the late Sir Edward Tyler was chiefly responsible) that there was inherent in man a similarity of the working of the human mind, in virtue of which men would independently invent the same stories and a whole series of similar customs and beliefs, with every accidental eccentricity exactly reproduced. This theory has held sway for 50 years ; but it is now at its last ebb. The school of Freudian Psychologists have just come to its rescue, and have tried to give this dying belief a new lease of life. Belief in typical symbols, that is the belief that people in all parts of the world, in their dreams and their innermost thoughts, as well as in their myths, would naturally and instinctively imagine the same things (mostly unpleasant, according to the Freudians) is so preposterous that it is difficult to treat it seriously. With the essential claim made by Freud that the phantasies of the waking and the dreaming life are genuine products which ought to be taken seriously and analysed, I think most psychologists are prepared to agree at the present day : but the remarkable fact about this theory of typical symbols is that it runs directly counter to the fundamental teaching of Freud himself. The essence of Freud's teaching was to take seriously the incidents of dreams, to examine them and discover what was the nature of the incidents in the *individual* experience of each person whose dreams were being analysed which would afford an explanation of these remarkable and fantastic stories which emerge from dreams. Having pursued this analysis of the individual and the results of individual experience up to a certain point, the Freudians suddenly throw over the whole of the fundamental principle of their teaching, and then try to force these individual experiences into the same uniform mould. These views are not only difficult to justify either by logic or by any principle of psychology, but they are certainly in strongest conflict with all that is known as to the history of primitive culture in any part of the world. The analogies which Freud tried to institute between the beliefs of primitive people and the fantastic views which neurotic patients develop are devoid of reality. The meaning of the terms which are employed by

ethnologists to describe certain incidents in the beliefs of primitive peoples are entirely different in essential respects from the beliefs to which these words are applied in ordinary usage amongst ourselves. I refer to this matter because it represents a gross perversion of the nature of the hereditary attributes of mind.

The adoption of such ideas of instinctive tendencies would seriously hinder the careful investigation of the genuine psychological distinctive features of different races. If one compares the characteristics of the three fundamental constituent races of Europe, the blonde Nordic people, the broad-headed so-called Alpine people of Central Europe, and the Mediterranean people, there are obvious to anyone, even when the representatives of these different peoples occur in members of the same family, differences in idiosyncrasies and in mental aptitude that must have played a very large part in determining the intellectual and the moral achievements of those particular races of Europe in which one or other of these different strains predominated.

These are matters which have not yet been thoroughly analysed, and which cannot be seriously investigated while the strange speculations just mentioned are confusing men's minds. It is utterly misleading for anthropologists to talk about the psychic unity of mankind, simply to cover the preposterous pretence that different people, without any contact one with the other, invent the same folk stories, with all the eccentric incidents exactly reproduced. All mankind are impelled by the same instincts—that is the real psychical unity—but the extent to which men learn to control and direct these instincts is influenced partly by the racial aptitude of a particular strain, and to a very large extent by the social inheritance that each community enjoys : this has been handed on from one generation to another as the result of certain historical facts and not because there is any mystic "psychic unity."

In these remarks I have been steering my way between the Scylla and Charybdis of the supposed dominant influence of the geographical environment in shaping the physical and mental aptitudes of races and the other extreme claim that there are certain inherent tendencies in different people to imagine the same fantastic stories, whether one uses the terminology of the old ethnologists or of modern Freudians. In discussing these matters I have not, perhaps, added very materially to your enlightenment about the progress of Anthropology ; but I have, I hope, indicated the morass in which anthropological studies are at present : and I have suggested how it is possible for students of man, either upon the physical or on the psychological side, to escape from these difficulties, and to put Anthropology upon a serious, scientific footing.

I am afraid that my remarks have rambled over a wide field. When I was honoured with the invitation to address you this evening, I received instructions at the same time that I was to speak upon the physical and mental distinctive characteristics of races. That is rather a large order. Therefore, I have tried to depict the difficulties with which these subjects are beset at the present moment, and to suggest a way in which we can escape from them.